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5/15/91 KHJ

May 14, 1991

MEMORANDUM

SUBJECT: Report of Data Validation of Phenols and PAH's for the Ridgefield Brick and Tile Project.

FROM: JN Blazevich, Chief
GC/MS Section

TO: Marcia Bailey
Project Officer

THRU: Michael M. Johnston, Chief
Laboratory Branch

The following is a QA data review of the phenols and PAH analysis of water samples collected at Ridgefield Brick and Tile and performed at the Manchester Laboratory. This review covers the following samples:

91130150	91130156	91130164
91130152	91130158	91130166
91130154	91130162	91130168

The project code for these samples is HWD-127A and the account number is AGDD3A.

Data Qualifications

The following comments refer to the laboratory performance in meeting the Quality Control specifications outlined in the "CLP Statement of Work, Organic Analysis, revision 2/88."

I. Holding Times: Acceptable.

The samples were held seven days or less between collection and extraction. The extracts were held less than forty days between extraction and analysis. No data qualifiers are required due to exceeding holding times.

II. GC/MS Tuning and Performance: Acceptable

The tuning summary agreed with the raw data. All decafluorotriphenylphosphine ion abundance met criteria. All sample analyses were preceded by a tune less than 12 hours prior to analysis. No data qualifiers are required on the basis of tuning data.

III. Initial Calibration: Acceptable

A four point calibration curve was constructed for most target compounds on 4/26/91 from a linear regression of the selected ion monitoring data. The calculation of the relative response factors was checked and the calculation method was correct.

All phenolic and PAH analytes met the SPCC criterion. All relative response factors were acceptable.

IV. Continuing Calibration: Acceptable

The response factors for all phenolic and PAH compounds were above 0.05. No qualifiers are required on the basis of the continuing calibration performed on 4/29/90.

V. Blanks: Acceptable.

Two blanks were analyzed with the extraction batch. Two analytes, phenol and naphthalene, were found to be present in the blanks at 0.06 and 0.005 ug/L. Neither of these compounds were reported in a sample unless the concentration in that sample exceeded 5 times that found in the blanks.

VI. Surrogates: Acceptable.

All surrogate recoveries were acceptable for all extracted blanks, spikes and samples. No qualifiers are required due to surrogate recovery results.

VII. Matrix Spike/Matrix Spike Duplicate: Acceptable.

The recoveries of spiked analytes in matrix spike and matrix spike duplicate samples were acceptable. No qualifiers were assigned on the basis of matrix spike/matrix spike duplicate results.

VIII. Internal Standards Performance: Acceptable.

The retention time variations of all internal standards were within 30 seconds of the daily standard, which is acceptable. The area% of all the internal standards fell within the specified 50% to 200% of the daily standard. No data qualifiers are required on the basis of internal standards data.

IX. TCL Compound Identification: Acceptable.

All TCL compounds' relative retention times were within 0.06 units of the related standards in the continuing calibration standard. All criteria were met for mass spectral ion matching and ion abundance matching.

X. Compound Quantitation:

All calculations were performed using the initial calibration curve except those of the matrix spike (MS) and matrix spike duplicate (MSD). The MS and MSD results were calculated using the standard response factors obtain on the day the spike samples were analyzed. This was done to better approximate the higher concentrations in the spike samples since the amounts in the daily standard were of the same magnitude.

The lower concentrations of the target analytes found in the samples and blanks were calculated using the response factor computed by a linear fit to the lower concentration data from the initial calibration curve regardless of which day the samples were analyzed on. The higher concentrations of the initial calibration curve were excluded from these calculations. This action was deemed appropriate since the high portion of the curve did not fit well with the lower portion of the curve.

The overall effect of this action is that the MS and MSD results were computed using single point calibration and the sample and blank results were computed using response factors from the linear fit of the multiple analytical analyses of the initial calibration. As a consequence, all positive results are considered estimates and are given the qualifier "J". Further, since MDL's for the target analytes have not been established in this laboratory when selected ion monitoring is used, all PQL values are estimates and are given the qualifier "UJ".

Overall Assessment for the Case

The usefulness of the data is based on the criteria outlined in the "Laboratory Data Validation Function Guidelines for Evaluating Organics Analyses" (2/1988).

All of the requirements for data qualifiers from the preceding sections were accumulated. Each sample data summary sheet and each compound was checked for positive or negative results. From this, the overall need for data qualifiers for each analysis was determined. In cases where more than one of the preceding sections required data qualifiers, the most restrictive qualifier has been added to the data.

This data, although qualified as estimated, is reasonable and may be used for most actions. It could be used for regulatory actions but only with reluctance. Should questions arise regarding the qualification of data and its relation to the usefulness, the reader is encouraged to contact the Region 10 laboratory.

DATA QUALIFIERS

U - The analyte was analyzed for but not detected at or above the reported value.

J - The analyte was analyzed for, and positively identified. The associated numerical value is an estimate only.

REJ - The data are unusable for all purposes. The analyte was analyzed for, but the presence of the analyte has not been verified.

N - There is presumptive evidence the compound is present in this sample.

NJ - There is presumptive evidence that the analyte is present. The associated numerical value is an estimate.

UJ - The analyte was analyzed for but not detected at or above the reported estimated value.

NAR - No analytical result.

EXP - The value is equal to the number before EXP times 10 to the power of the number after EXP. As an example 3EXP6 equals 3×10^6.

***** - The analyte was present in the sample. (Visual Aid to locate detected compound on report sheet).

Project: HWD-127A RIDGEFIELD BRICK AND TILE Officer: MLB Account: AGDD3A

Laboratory: EPA, Manchester

Sample No: 91 130150 Description: RB-B15-01 Source: Well (Test/Observation)

Begin Date: 91/03/27 11:15

B/N/Acid Scan	Water-Total Result	Units
Benzo(a)pyrene	0.06UJ	ug/l
2,4-Dinitrophenol	0.6UJ	ug/l
Dibenzo(a,h)anthracene	0.06UJ	ug/l
Benzo(a)anthracene	0.06UJ	ug/l
4-Chloro-3-Methylphenol	0.06UJ	ug/l
Acenaphthene	0.06UJ	ug/l
Phenanthrene	0.06UJ	ug/l
Fluorene	0.06UJ	ug/l
Carbazole	0.004J*	ug/l
Pentachlorophenol	0.6UJ	ug/l
2,4,6-Trichlorophenol	0.06UJ	ug/l
2-Nitrophenol	0.06UJ	ug/l
Naphthalene, 1-Methyl-	0.06UJ	ug/l
Naphthalene	0.06UJ	ug/l
2-Methylnaphthalene	0.06UJ	ug/l
2-Chloronaphthalene	0.06UJ	ug/l
2-Methylphenol	0.06UJ	ug/l
o-Chlorophenol	0.06UJ	ug/l
2,4,5-Trichlorophenol	0.06UJ	ug/l
4-Nitrophenol	0.6UJ	ug/l
2,4-Dimethylphenol	0.06UJ	ug/l
4-Methylphenol	0.06UJ	ug/l
Phenol	0.1UJ	ug/l
Anthracene	0.06UJ	ug/l
2,4-Dichlorophenol	0.06UJ	ug/l
Pyrene	0.06UJ	ug/l
Dibenzofuran	0.06UJ	ug/l
Benzo(ghi)perylene	0.06UJ	ug/l
Indeno(1,2,3-cd)pyrene	0.06UJ	ug/l
Benzo(b)fluoranthene	0.02J*	ug/l
Fluoranthene	0.006J*	ug/l
Benzo(k)fluoranthene	0.02J*	ug/l
Acenaphthylene	0.06UJ	ug/l
Chrysene	0.06UJ	ug/l
Retene	0.06UJ	ug/l
4,6-Dinitro-2-methylph+	0.6UJ	ug/l
Surrog: 2,4,6-Tribromo+	NAR	% Recov
Surrog: 2-Fluorobiphen+	46	% Recov
Surrog: 2-Fluorophenol	31	% Recov
Surrog: D14-Terphenyl	84	% Recov
PYRENE-D10 (SS)	84	% Recov
Surrog: D5-Nitrobenzene	51	% Recov
Surrog: D5-Phenol	18	% Recov

(Sample Complete)

Project: HWD-127A RIDGEFIELD BRICK AND TILE Officer: MLB Account: AGDD3A

Laboratory: EPA, Manchester

Sample No: 91 130152 Description: RB-B4-01 Source: Well (Test/Observation)

Begin Date: 91/03/27 12:30

B/N/Acid Scan	Water-Total Result	Units	B/N/Acid Scan Matrix Spike #1	Water-Total Result	Units	B/N/Acid Scan Matrix Spike #2	Water-Total Result	Units
Benzo(a)pyrene	0.03J*	ug/l	Benzo(a)pyrene	74	% Recov	Benzo(a)pyrene	56	% Recov
2,4-Dinitrophenol	0.6UJ	ug/l	2,4-Dinitrophenol	98	% Recov	2,4-Dinitrophenol	94	% Recov
Dibenzo(a,h)anthracene	0.06UJ	ug/l	Dibenzo(a,h)anthracene	61	% Recov	Dibenzo(a,h)anthracene	55	% Recov
Benzo(a)anthracene	0.06UJ	ug/l	Benzo(a)anthracene	81	% Recov	Benzo(a)anthracene	77	% Recov
4-Chloro-3-Methylphenol	0.06UJ	ug/l	4-Chloro-3-Methylphenol	73	% Recov	4-Chloro-3-Methylphenol	78	% Recov
Acenaphthene	0.0006J*	ug/l	Acenaphthene	71	% Recov	Acenaphthene	84	% Recov
Phenanthrene	0.005J*	ug/l	Phenanthrene	79	% Recov	Phenanthrene	82	% Recov
Fluorene	0.06UJ	ug/l	Fluorene	79	% Recov	Fluorene	88	% Recov
Carbazole	0.02J*	ug/l	Carbazole	NAR	% Recov	Carbazole	NAR	% Recov
Pentachlorophenol	0.02J*	ug/l	Pentachlorophenol	105	% Recov	Pentachlorophenol	106	% Recov
2,4,6-Trichlorophenol	0.06UJ	ug/l	2,4,6-Trichlorophenol	72	% Recov	2,4,6-Trichlorophenol	76	% Recov
2-Nitrophenol	0.06UJ	ug/l	2-Nitrophenol	91	% Recov	2-Nitrophenol	95	% Recov
Naphthalene, 1-Methyl-	0.06UJ	ug/l	Naphthalene, 1-Methyl-	NAR	% Recov	Naphthalene, 1-Methyl-	NAR	% Recov
Naphthalene	0.06UJ	ug/l	Naphthalene	67	% Recov	Naphthalene	82	% Recov
2-Methylnaphthalene	0.002J*	ug/l	2-Methylnaphthalene	38	% Recov	2-Methylnaphthalene	50	% Recov
2-Chloronaphthalene	0.06UJ	ug/l	2-Chloronaphthalene	49	% Recov	2-Chloronaphthalene	64	% Recov
2-Methylphenol	0.06UJ	ug/l	2-Methylphenol	65	% Recov	2-Methylphenol	57	% Recov
o-Chlorophenol	0.06UJ	ug/l	o-Chlorophenol	77	% Recov	o-Chlorophenol	76	% Recov
2,4,5-Trichlorophenol	0.06UJ	ug/l	2,4,5-Trichlorophenol	90	% Recov	2,4,5-Trichlorophenol	90	% Recov
4-Nitrophenol	0.6UJ	ug/l	4-Nitrophenol	26	% Recov	4-Nitrophenol	20	% Recov
2,4-Dimethylphenol	0.06UJ	ug/l	2,4-Dimethylphenol	50	% Recov	2,4-Dimethylphenol	41	% Recov
4-Methylphenol	0.0003J*	ug/l	4-Methylphenol	49	% Recov	4-Methylphenol	38	% Recov
Phenol	0.06UJ	ug/l	Phenol	21	% Recov	Phenol	20	% Recov
Anthracene	0.06UJ	ug/l	Anthracene	69	% Recov	Anthracene	60	% Recov
2,4-Dichlorophenol	0.06UJ	ug/l	2,4-Dichlorophenol	74	% Recov	2,4-Dichlorophenol	76	% Recov
Pyrene	0.02J*	ug/l	Pyrene	83	% Recov	Pyrene	83	% Recov
Dibenzofuran	0.001J*	ug/l	Dibenzofuran	65	% Recov	Dibenzofuran	78	% Recov
Benzo(ghi)perylene	0.06UJ	ug/l	Benzo(ghi)perylene	68	% Recov	Benzo(ghi)perylene	58	% Recov
Indeno(1,2,3-cd)pyrene	0.06UJ	ug/l	Indeno(1,2,3-cd)pyrene	72	% Recov	Indeno(1,2,3-cd)pyrene	63	% Recov
Benzo(b)fluoranthene	0.04J*	ug/l	Benzo(b)fluoranthene	73	% Recov	Benzo(b)fluoranthene	64	% Recov
Fluoranthene	0.01J*	ug/l	Fluoranthene	84	% Recov	Fluoranthene	82	% Recov
Benzo(k)fluoranthene	0.03J*	ug/l	Benzo(k)fluoranthene	75	% Recov	Benzo(k)fluoranthene	67	% Recov
Acenaphthylene	0.06UJ	ug/l	Acenaphthylene	71	% Recov	Acenaphthylene	83	% Recov
Chrysene	0.06UJ	ug/l	Chrysene	84	% Recov	Chrysene	77	% Recov
Retene	0.06UJ	ug/l	Retene	NAR	% Recov	Retene	NAR	% Recov
4,6-Dinitro-2-methylph+	0.6UJ	ug/l	4,6-Dinitro-2-methylph+	74	% Recov	4,6-Dinitro-2-methylph+	83	% Recov
Surrog: 2,4,6-Tribromo+	NAR	% Recov	Surrog: 2,4,6-Tribromo+	NAR	% Recov	Surrog: 2,4,6-Tribromo+	NAR	% Recov
Surrog: 2-Fluorobiphen+	37	% Recov	Surrog: 2-Fluorobiphen+	57	% Recov	Surrog: 2-Fluorobiphen+	75	% Recov
Surrog: 2-Fluorophenol	24	% Recov	Surrog: 2-Fluorophenol	38	% Recov	Surrog: 2-Fluorophenol	40	% Recov
Surrog: D14-Terphenyl	71	% Recov	Surrog: D14-Terphenyl	71	% Recov	Surrog: D14-Terphenyl	72	% Recov
PYRENE-D10 (SS)	64	% Recov	PYRENE-D10 (SS)	80	% Recov	PYRENE-D10 (SS)	92	% Recov
Surrog: D5-Nitrobenzene	42	% Recov	Surrog: D5-Nitrobenzene	87	% Recov	Surrog: D5-Nitrobenzene	100	% Recov
Surrog: D5-Phenol	16	% Recov	Surrog: D5-Phenol	20	% Recov	Surrog: D5-Phenol	21	% Recov

(Sample Complete)

Project: HWD-127A RIDGEFIELD BRICK AND TILE Officer: MLB Account: AGDD3A

Laboratory: EPA, Manchester

Sample No: 91 130154 Description: RB-B10-01 Source: Well (Test/Observation)

Begin Date: 91/03/27 12:45

B/N/Acid Scan	Water-Total Result	Units
Benzo(a)pyrene	0.03J*	ug/l
2,4-Dinitrophenol	0.6UJ	ug/l
Dibenzo(a,h)anthracene	0.02J*	ug/l
Benzo(a)anthracene	0.06UJ	ug/l
4-Chloro-3-Methylphenol	0.06UJ	ug/l
Acenaphthene	0.0006J*	ug/l
Phenanthrene	0.007J*	ug/l
Fluorene	0.06UJ	ug/l
Carbazole	0.06UJ	ug/l
Pentachlorophenol	0.02J*	ug/l
2,4,6-Trichlorophenol	0.06UJ	ug/l
2-Nitrophenol	0.06UJ	ug/l
Naphthalene, 1-Methyl-	0.003J*	ug/l
Naphthalene	0.06UJ	ug/l
2-Methylnaphthalene	0.003J*	ug/l
2-Chloronaphthalene	0.06UJ	ug/l
2-Methylphenol	0.06UJ	ug/l
o-Chlorophenol	0.06UJ	ug/l
2,4,5-Trichlorophenol	0.06UJ	ug/l
4-Nitrophenol	0.6UJ	ug/l
2,4-Dimethylphenol	0.06UJ	ug/l
4-Methylphenol	0.06UJ	ug/l
Phenol	0.07UJ	ug/l
Anthracene	0.06UJ	ug/l
2,4-Dichlorophenol	0.06UJ	ug/l
Pyrene	0.01J*	ug/l
Dibenzofuran	0.06UJ	ug/l
Benzo(ghi)perylene	0.06UJ	ug/l
Indeno(1,2,3-cd)pyrene	0.06UJ	ug/l
Benzo(b)fluoranthene	0.03J*	ug/l
Fluoranthene	0.008J*	ug/l
Benzo(k)fluoranthene	0.03J*	ug/l
Acenaphthylene	0.06UJ	ug/l
Chrysene	0.06UJ	ug/l
Retene	0.06UJ	ug/l
4,6-Dinitro-2-methylph+	0.6UJ	ug/l
Surrog: 2,4,6-Tribromo+	NAR	% Recov
Surrog: 2-Fluorobiphen+	46	% Recov
Surrog: 2-Fluorophenol	33	% Recov
Surrog: D14-Terphenyl	69	% Recov
PYRENE-D10 (SS)	62	% Recov
Surrog: D5-Nitrobenzene	50	% Recov
Surrog: D5-Phenol	21	% Recov

(Sample Complete)

Project: HWD-127A RIDGEFIELD BRICK AND TILE Officer: MLB Account: AGDD3A

Laboratory: EPA, Manchester

Sample No: 91 130156 Description: RB-B5-01 Source: Well (Test/Observation)

Begin Date: 91/03/27 15:00

B/N/Acid Scan	Water-Total Result	Units
Benzo(a)pyrene	0.04J*	ug/l
2,4-Dinitrophenol	1UJ	ug/l
Dibenzo(a,h)anthracene	0.1UJ	ug/l
Benzo(a)anthracene	0.1UJ	ug/l
4-Chloro-3-Methylphenol	0.1UJ	ug/l
Acenaphthene	0.001J*	ug/l
Phenanthrene	0.02J*	ug/l
Fluorene	0.002J*	ug/l
Carbazole	0.1UJ	ug/l
Pentachlorophenol	0.06J*	ug/l
2,4,6-Trichlorophenol	0.1UJ	ug/l
2-Nitrophenol	0.1UJ	ug/l
Naphthalene, 1-Methyl-	0.005J*	ug/l
Naphthalene	0.1UJ	ug/l
2-Methylnaphthalene	0.005J*	ug/l
2-Chloronaphthalene	0.1UJ	ug/l
2-Methylphenol	0.1UJ	ug/l
o-Chlorophenol	0.1UJ	ug/l
2,4,5-Trichlorophenol	0.1UJ	ug/l
4-Nitrophenol	1UJ	ug/l
2,4-Dimethylphenol	0.1UJ	ug/l
4-Methylphenol	0.1UJ	ug/l
Phenol	0.1UJ	ug/l
Anthracene	0.1UJ	ug/l
2,4-Dichlorophenol	0.1UJ	ug/l
Pyrene	0.02J*	ug/l
Dibenzofuran	0.1UJ	ug/l
Benzo(ghi)perylene	0.1UJ	ug/l
Indeno(1,2,3-cd)pyrene	0.1UJ	ug/l
Benzo(b)fluoranthene	0.06J*	ug/l
Fluoranthene	0.02J*	ug/l
Benzo(k)fluoranthene	0.03J*	ug/l
Acenaphthylene	0.1UJ	ug/l
Chrysene	0.1UJ	ug/l
Retene	0.1UJ	ug/l
4,6-Dinitro-2-methylph+	1UJ	ug/l
Surrog: 2,4,6-Tribromo+	NAR	% Recov
Surrog: 2-Fluorobiphen+	49	% Recov
Surrog: 2-Fluorophenol	42	% Recov
Surrog: D14-Terphenyl	66	% Recov
PYRENE-D10 (SS)	43	% Recov
Surrog: D5-Nitrobenzene	51	% Recov
Surrog: D5-Phenol	31	% Recov

(Sample Complete)

Project: HWD-127A RIDGEFIELD BRICK AND TILE Officer: MLB Account: AGDD3A

Laboratory: EPA, Manchester

Sample No: 91 130158 Description: RB-B6-01 Source: Well (Test/Observation)

Begin Date: 91/03/27 15:20

B/N/Acid Scan	Water-Total Result	Units
Benzo(a)pyrene	0.05J*	ug/l
2,4-Dinitrophenol	0.7UJ	ug/l
Dibenzo(a,h)anthracene	0.07UJ	ug/l
Benzo(a)anthracene	0.07UJ	ug/l
4-Chloro-3-Methylphenol	0.07UJ	ug/l
Acenaphthene	0.002J*	ug/l
Phenanthrene	0.01J*	ug/l
Fluorene	0.07UJ	ug/l
Carbazole	0.07U	ug/l
Pentachlorophenol	0.06J*	ug/l
2,4,6-Trichlorophenol	0.07UJ	ug/l
2-Nitrophenol	0.07UJ	ug/l
Naphthalene, 1-Methyl-	0.005J*	ug/l
Naphthalene	0.07UJ	ug/l
2-Methylnaphthalene	0.004J*	ug/l
2-Chloronaphthalene	0.07UJ	ug/l
2-Methylphenol	0.07UJ	ug/l
o-Chlorophenol	0.07UJ	ug/l
2,4,5-Trichlorophenol	0.07UJ	ug/l
4-Nitrophenol	0.7UJ	ug/l
2,4-Dimethylphenol	0.07UJ	ug/l
4-Methylphenol	0.07UJ	ug/l
Phenol	0.9J*	ug/l
Anthracene	0.07UJ	ug/l
2,4-Dichlorophenol	0.07UJ	ug/l
Pyrene	0.02J*	ug/l
Dibenzofuran	0.002J*	ug/l
Benzo(ghi)perylene	0.02J*	ug/l
Indeno(1,2,3-cd)pyrene	0.07UJ	ug/l
Benzo(b)fluoranthene	0.04J*	ug/l
Fluoranthene	0.01J*	ug/l
Benzo(k)fluoranthene	0.02J*	ug/l
Acenaphthylene	0.07UJ	ug/l
Chrysene	0.07UJ	ug/l
Retene	0.07UJ	ug/l
4,6-Dinitro-2-methylph+	0.7UJ	ug/l
Surrog: 2,4,6-Tribromo+,	NAR	% Recov
Surrog: 2-Fluorobiphen+	55	% Recov
Surrog: 2-Fluorophenol	36	% Recov
Surrog: D14-Terphenyl	81	% Recov
PYRENE-D10 (SS)	80	% Recov
Surrog: D5-Nitrobenzene	55	% Recov
Surrog: D5-Phenol	20	% Recov

(Sample Complete)

Project: HWD-127A RIDGEFIELD BRICK AND TILE Officer: MLB Account: AGDD3A

Laboratory: EPA, Manchester

Sample No: 91 130162 Description: RB-TD1-01 Source: Well (Test/Observation)

Begin Date: 91/03/28 09:45

B/N/Acid Scan	Water-Total Result	Units
Benzo(a)pyrene	0.06UJ	ug/l
2,4-Dinitrophenol	0.6UJ	ug/l
Dibenzo(a,h)anthracene	0.06UJ	ug/l
Benzo(a)anthracene	0.06UJ	ug/l
4-Chloro-3-Methylphenol	0.06UJ	ug/l
Acenaphthene	0.6J*	ug/l
Phenanthrene	0.1J*	ug/l
Fluorene	0.2J*	ug/l
Carbazole	0.2J*	ug/l
Pentachlorophenol	1J*	ug/l
2,4,6-Trichlorophenol	0.06UJ	ug/l
2-Nitrophenol	0.06UJ	ug/l
Naphthalene, 1-Methyl-	0.1J*	ug/l
Naphthalene	0.4J*	ug/l
2-Methylnaphthalene	0.02J*	ug/l
2-Chloronaphthalene	0.06UJ	ug/l
2-Methylphenol	0.005J*	ug/l
o-Chlorophenol	0.06UJ	ug/l
2,4,5-Trichlorophenol	0.06UJ	ug/l
4-Nitrophenol	0.6UJ	ug/l
2,4-Dimethylphenol	0.06UJ	ug/l
4-Methylphenol	0.01J*	ug/l
Phenol	0.2UJ	ug/l
Anthracene	0.04J*	ug/l
2,4-Dichlorophenol	0.06UJ	ug/l
Pyrene	0.08J*	ug/l
Dibenzofuran	0.2J*	ug/l
Benzo(ghi)perylene	0.06UJ	ug/l
Indeno(1,2,3-cd)pyrene	0.06UJ	ug/l
Benzo(b)fluoranthene	0.06UJ	ug/l
Fluoranthene	0.08J*	ug/l
Benzo(k)fluoranthene	0.06UJ	ug/l
Acenaphthylene	0.02J*	ug/l
Chrysene	0.06UJ	ug/l
Retene	0.06UJ	ug/l
4,6-Dinitro-2-methylph+	0.6UJ	ug/l
Surrog: 2,4,6-Tribromo+	NAR	% Recov
Surrog: 2-Fluorobiphen+	59	% Recov
Surrog: 2-Fluorophenol	38	% Recov
Surrog: D14-Terphenyl	73	% Recov
PYRENE-D10 (SS)	77	% Recov
Surrog: D5-Nitrobenzene	57	% Recov
Surrog: D5-Phenol	21	% Recov

(Sample Complete)

Project: HWD-127A RIDGEFIELD BRICK AND TILE Officer: MLB Account: AGDD3A

Laboratory: EPA, Manchester

Sample No: 91 130164 Description: RB-TD2-01 Source: Well (Test/Observation)

Begin Date: 91/03/28 10:40

B/N/Acid Scan	Water-Total Result	Units
Benzo(a)pyrene	0.07UJ	ug/l
2,4-Dinitrophenol	0.7UJ	ug/l
Dibenzo(a,h)anthracene	0.07UJ	ug/l
Benzo(a)anthracene	0.07UJ	ug/l
4-Chloro-3-Methylphenol	0.07UJ	ug/l
Acenaphthene	0.2J*	ug/l
Phenanthrene	0.05J*	ug/l
Fluorene	0.1J*	ug/l
Carbazole	0.05J*	ug/l
Pentachlorophenol	0.7J*	ug/l
2,4,6-Trichlorophenol	0.07UJ	ug/l
2-Nitrophenol	0.07UJ	ug/l
Naphthalene, 1-Methyl-	0.05J*	ug/l
Naphthalene	0.2J*	ug/l
2-Methylnaphthalene	0.004J*	ug/l
2-Chloronaphthalene	0.07UJ	ug/l
2-Methylphenol	0.002J*	ug/l
o-Chlorophenol	0.07UJ	ug/l
2,4,5-Trichlorophenol	0.07UJ	ug/l
4-Nitrophenol	0.7UJ	ug/l
2,4-Dimethylphenol	0.07UJ	ug/l
4-Methylphenol	0.02J*	ug/l
Phenol	0.07UJ	ug/l
Anthracene	0.02J*	ug/l
2,4-Dichlorophenol	0.07UJ	ug/l
Pyrene	0.02J*	ug/l
Dibenzofuran	0.06J*	ug/l
Benzo(ghi)perylene	0.07UJ	ug/l
Indeno(1,2,3-cd)pyrene	0.07UJ	ug/l
Benzo(b)fluoranthene	0.07UJ	ug/l
Fluoranthene	0.03J*	ug/l
Benzo(k)fluoranthene	0.07UJ	ug/l
Acenaphthylene	0.007J*	ug/l
Chrysene	0.07UJ	ug/l
Retene	0.07UJ	ug/l
4,6-Dinitro-2-methylph+	0.7UJ	ug/l
Surrog: 2,4,6-Tribromo+	NAR	% Recov
Surrog: 2-Fluorobiphen+	49	% Recov
Surrog: 2-Fluorophenol	33	% Recov
Surrog: D14-Terphenyl	79	% Recov
PYRENE-D10 (SS)	82	% Recov
Surrog: D5-Nitrobenzene	53	% Recov
Surrog: D5-Phenol	19	% Recov

(Sample Complete)

Project: HWD-127A RIDGEFIELD BRICK AND TILE Officer: MLB Account: AGDD3A

Laboratory: EPA, Manchester

Sample No: 91 130166 Description: RB-TD10-01 Source: Well (Test/Observation)

Begin Date: 91/03/28 09:55

B/N/Acid Scan	Water-Total Result	Units
Benzo(a)pyrene	0.06UJ	ug/l
2,4-Dinitrophenol	0.6UJ	ug/l
Dibenzo(a,h)anthracene	0.06UJ	ug/l
Benzo(a)anthracene	0.06UJ	ug/l
4-Chloro-3-Methylphenol	0.06UJ	ug/l
Acenaphthene	0.6J*	ug/l
Phenanthrene	0.1J*	ug/l
Fluorene	0.2J*	ug/l
Carbazole	0.1J*	ug/l
Pentachlorophenol	1J*	ug/l
2,4,6-Trichlorophenol	0.06UJ	ug/l
2-Nitrophenol	0.06UJ	ug/l
Naphthalene, 1-Methyl-	0.1J*	ug/l
Naphthalene	0.4J*	ug/l
2-Methylnaphthalene	0.01J*	ug/l
2-Chloronaphthalene	0.06UJ	ug/l
2-Methylphenol	0.002J*	ug/l
o-Chlorophenol	0.06UJ	ug/l
2,4,5-Trichlorophenol	0.06UJ	ug/l
4-Nitrophenol	0.6UJ	ug/l
2,4-Dimethylphenol	0.06UJ	ug/l
4-Methylphenol	0.006J*	ug/l
Phenol	0.06UJ	ug/l
Anthracene	0.04J*	ug/l
2,4-Dichlorophenol	0.06UJ	ug/l
Pyrene	0.09J*	ug/l
Dibenzofuran	0.2J*	ug/l
Benzo(ghi)perylene	0.06UJ	ug/l
Indeno(1,2,3-cd)pyrene	0.06UJ	ug/l
Benzo(b)fluoranthene	0.06UJ	ug/l
Fluoranthene	0.08J*	ug/l
Benzo(k)fluoranthene	0.06UJ	ug/l
Acenaphthylene	0.01J*	ug/l
Chrysene	0.06UJ	ug/l
Retene	0.06UJ	ug/l
4,6-Dinitro-2-methylph+	0.6UJ	ug/l
Surrog: 2,4,6-Tribromo+	NAR	% Recov
Surrog: 2-Fluorobiphen+	52	% Recov
Surrog: 2-Fluorophenol	37	% Recov
Surrog: D14-Terphenyl	85	% Recov
PYRENE-D10 (SS)	88	% Recov
Surrog: D5-Nitrobenzene	57	% Recov
Surrog: D5-Phenol	22	% Recov

(Sample Complete)

Project: HWD-127A RIDGEFIELD BRICK AND TILE Officer: MLB Account: AGDD3A

Laboratory: EPA, Manchester

Sample No: 91 130168 Description: RB-TD15-01 Source: Well (Test/Observation)

Begin Date: 91/03/28 11:25

B/N/Acid Scan	Water-Total Result	Units
Benzo(a)pyrene	0.06UJ	ug/l
2,4-Dinitrophenol	0.6UJ	ug/l
Dibenzo(a,h)anthracene	0.06UJ	ug/l
Benzo(a)anthracene	0.06UJ	ug/l
4-Chloro-3-Methylphenol	0.06UJ	ug/l
Acenaphthene	0.06UJ	ug/l
Phenanthrene	0.06UJ	ug/l
Fluorene	0.06UJ	ug/l
Carbazole	0.06UJ	ug/l
Pentachlorophenol	0.6UJ	ug/l
2,4,6-Trichlorophenol	0.06UJ	ug/l
2-Nitrophenol	0.06UJ	ug/l
Naphthalene, 1-Methyl-	0.06UJ	ug/l
Naphthalene	0.06UJ	ug/l
2-Methylnaphthalene	0.06UJ	ug/l
2-Chloronaphthalene	0.06UJ	ug/l
2-Methylphenol	0.06UJ	ug/l
o-Chlorophenol	0.06UJ	ug/l
2,4,5-Trichlorophenol	0.06UJ	ug/l
4-Nitrophenol	0.6UJ	ug/l
2,4-Dimethylphenol	0.06UJ	ug/l
4-Methylphenol	0.06UJ	ug/l
Phenol	0.1UJ	ug/l
Anthracene	0.06UJ	ug/l
2,4-Dichlorophenol	0.06UJ	ug/l
Pyrene	0.06UJ	ug/l
Dibenzofuran	0.06UJ	ug/l
Benzo(ghi)perylene	0.06UJ	ug/l
Indeno(1,2,3-cd)pyrene	0.06UJ	ug/l
Benzo(b)fluoranthene	0.06UJ	ug/l
Fluoranthene	0.06UJ	ug/l
Benzo(k)fluoranthene	0.06UJ	ug/l
Acenaphthylene	0.06UJ	ug/l
Chrysene	0.06UJ	ug/l
Retene	0.06UJ	ug/l
4,6-Dinitro-2-methylph+	0.6UJ	ug/l
Surrog: 2,4,6-Tribromo+	NAR	% Recov
Surrog: 2-Fluorobiphen+	57	% Recov
Surrog: 2-Fluorophenol	36	% Recov
Surrog: D14-Terphenyl	81	% Recov
PYRENE-D10 (SS)	82	% Recov
Surrog: D5-Nitrobenzene	58	% Recov
Surrog: D5-Phenol	20	% Recov

(Sample Complete)

Project: HWD-127A RIDGEFIELD BRICK AND TILE Officer: MLB Account: AGDD3A

Blank ID: BW1093

B/N/Acid Scan Blank #1	Water-Total Result	Units
Benzo(a)pyrene	0.07UJ	ug/l
2,4-Dinitrophenol	0.7UJ	ug/l
Dibenzo(a,h)anthracene	0.07UJ	ug/l
Benzo(a)anthracene	0.07UJ	ug/l
4-Chloro-3-Methylphenol	0.07UJ	ug/l
Acenaphthene	0.07UJ	ug/l
Phenanthrene	0.07UJ	ug/l
Fluorene	0.07UJ	ug/l
Carbazole	0.07UJ	ug/l
Pentachlorophenol	0.7UJ	ug/l
2,4,6-Trichlorophenol	0.07UJ	ug/l
2-Nitrophenol	0.07UJ	ug/l
Naphthalene, 1-Methyl-	0.07UJ	ug/l
Naphthalene	0.005J*	ug/l
2-Methylnaphthalene	0.07UJ	ug/l
2-Chloronaphthalene	0.07UJ	ug/l
2-Methylphenol	0.07UJ	ug/l
o-Chlorophenol	0.07UJ	ug/l
2,4,5-Trichlorophenol	0.07UJ	ug/l
4-Nitrophenol	0.7UJ	ug/l
2,4-Dimethylphenol	0.07UJ	ug/l
4-Methylphenol	0.07UJ	ug/l
Phenol	0.06J*	ug/l
Anthracene	0.07UJ	ug/l
2,4-Dichlorophenol	0.07UJ	ug/l
Pyrene	0.07UJ	ug/l
Dibenzofuran	0.07UJ	ug/l
Benzo(ghi)perylene	0.07UJ	ug/l
Indeno(1,2,3-cd)pyrene	0.07UJ	ug/l
Benzo(b)fluoranthene	0.07UJ	ug/l
Fluoranthene	0.07UJ	ug/l
Benzo(k)fluoranthene	0.07UJ	ug/l
Acenaphthylene	0.07UJ	ug/l
Chrysene	0.07UJ	ug/l
Retene	0.07UJ	ug/l
4,6-Dinitro-2-methylph+	0.7UJ	ug/l
Surrog: 2,4,6-Tribromo+	NAR	% Recov
Surrog: 2-Fluorobiphen+	54	% Recov
Surrog: 2-Fluorophenol	47	% Recov
Surrog: D14-Terphenyl	98	% Recov
PYRENE-D10 (SS)	100	% Recov
Surrog: D5-Nitrobenzene	60	% Recov
Surrog: D5-Phenol	31	% Recov

(Sample Complete)

Project: HWD-127A RIDGEFIELD BRICK AND TILE Officer: MLB Account: AGDD3A

Blank ID: BW1093D

B/N/Acid Scan Blank #2	Water-Total Result	Units
Benzo(a)pyrene	0.07UJ	ug/l
2,4-Dinitrophenol	0.7UJ	ug/l
Dibenzo(a,h)anthracene	0.07UJ	ug/l
Benzo(a)anthracene	0.07UJ	ug/l
4-Chloro-3-Methylphenol	0.07UJ	ug/l
Acenaphthene	0.07UJ	ug/l
Phenanthrene	0.07UJ	ug/l
Fluorene	0.07UJ	ug/l
Carbazole	0.07UJ	ug/l
Pentachlorophenol	0.7UJ	ug/l
2,4,6-Trichlorophenol	0.07UJ	ug/l
2-Nitrophenol	0.07UJ	ug/l
Naphthalene, 1-Methyl-	0.07UJ	ug/l
Naphthalene	0.004J*	ug/l
2-Methylnaphthalene	0.07UJ	ug/l
2-Chloronaphthalene	0.07UJ	ug/l
2-Methylphenol	0.07UJ	ug/l
o-Chlorophenol	0.07UJ	ug/l
2,4,5-Trichlorophenol	0.07UJ	ug/l
4-Nitrophenol	0.7UJ	ug/l
2,4-Dimethylphenol	0.07UJ	ug/l
4-Methylphenol	0.07UJ	ug/l
Phenol	0.05J*	ug/l
Anthracene	0.07UJ	ug/l
2,4-Dichlorophenol	0.07UJ	ug/l
Pyrene	0.07UJ	ug/l
Dibenzofuran	0.07UJ	ug/l
Benzo(ghi)perylene	0.07UJ	ug/l
Indeno(1,2,3-cd)pyrene	0.07UJ	ug/l
Benzo(b)fluoranthene	0.07UJ	ug/l
Fluoranthene	0.07UJ	ug/l
Benzo(k)fluoranthene	0.07UJ	ug/l
Acenaphthylene	0.07UJ	ug/l
Chrysene	0.07UJ	ug/l
Retene	0.07UJ	ug/l
4,6-Dinitro-2-methylph+	0.7UJ	ug/l
Surrog: 2,4,6-Tribromo+	NAR	% Recov
Surrog: 2-Fluorobiphen+	49	% Recov
Surrog: 2-Fluorophenol	42	% Recov
Surrog: D14-Terphenyl	88	% Recov
PYRENE-D10 (SS)	90	% Recov
Surrog: D5-Nitrobenzene	58	% Recov
Surrog: D5-Phenol	28	% Recov

(Sample Complete)